UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
NGUYEN, CINDY

ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>30 May 2008</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
   closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-39</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-39</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
          application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

This is in response amendment filed 05/30/08.

Response to Arguments

Applicant's arguments have been considered but are moot in view of the new ground(s)

of rejection.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis

for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the
United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by
another filed in the United States before the invention by the applicant for patent, except that an international
application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an
application filed in the United States only if the international application designated the United States and was
published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 4-8, 10, 11, 13-15, 17-21, 23, 24, 26-28, 30-34, 36, 37 and 39 are

rejected under 35 U.S.C. 102(e) as being anticipated by anticipated by Calusinski

(US 20050071342).

Regarding claims 1, 14 and 27, Calusinski discloses: a system, a method and a computer-

accessible storage medium, comprising: a processor, (paragraph 0016, Calusinski); and

Memory (computer memory, paragraph 0016, Calusinski) coupled to the processor and configured

to store program instructions executable by the processor to implement a class structure based data

object enhancer configured to (paragraph 0025 , Calusinski):

input one or more classes (i.e., given the class name of a business object, paragraph 0030, Calusinski);

analyze the structure of the one or more classes to determine a persistence structure specifying data fields of the one or more classes to be persisted (i.e., determining all data values in the business object can be mapped to corresponding fields in the persistent data structure, paragraph 0061, 0062 Calusinski); and

generate one or more enhanced classes corresponding to the one or more classes such that an object of the one or more classes is enhanced to persist data of the data fields to be persisted according to the persistence structure object (i.e., Create method on a reflection class object that contains descriptive information about the class and return objects describing the business object's member methods and data fields, see paragraph 0032, 0059, 0060 Calusinski) , wherein said data of the data fields to be persisted is data of said object (data types, integer, string, array… in a persistent data store, paragraph 0028, Calusinski).

Regarding claims 2, 15 and 28, all the limitations of this claim have been noted in the rejection of claims 1, 14 and 27 above. However, Calusinski disclose: wherein to analyze the structure of the one or more classes, the class structure based enhancer is configured to make one or more Java reflection calls to the one or more classes (i.e., calling Java reflection methods in a Java reflection interface, example, the business object has a class name, and as described above, inferring the business object data structure from metadata describing the business object typically is accomplished by inferring the

business object data structure in dependence upon the class name of the business object, paragraph 0059,

Calusinski).

Regarding claims 4, 17 and 30, all the limitations of this claim have been noted in the rejection

of claims 1, 14 and 27 above. In addition, Calusinski discloses: wherein the class structure based

enhancer is further configured to generate metadata that includes the results of the analysis of the

structure of the one or more classes (i.e., creating a data object structured according to a persistent data

structure at least describes the table names, the field names, and the field values for use in processing of

the persistent data store, see paragraph 0064, Calusinski).

Regarding claims 5, 18, 31, all the limitations of this claim have been noted in the

rejection of claims 4, 17 and 30 above. In addition, Calusinski discloses: wherein the generated

metadata is output explicitly as a metadata file (i.e., XML document in paragraph 0063,

Calusinski).

Regarding claims 6, 19 and 32, all the limitations of this claim have been noted in the rejection

of claims 5, 18, 31 above. In addition, Calusinski discloses: wherein the metadata file is an extensible

markup language (XML) file (i.e., see paragraph 0063, Calusinski).

Regarding claims 7, 20 and 33, all the limitations of this claim have been noted in the rejection

of claims 1, 14 and 27 above. In addition, Calusinski discloses: wherein the persistence structure

corresponds to the structure of the one or more classes (i.e., persistent data structure may be carried out

by identifying the table in dependence upon a class name of the business object... see paragraph 0060,

Calusinski).

Regarding claims 8, 21, 34, all the limitations of this claim have been noted in the rejection of

claims 1, 14 and 27 above. In addition, Calusinski discloses wherein the persistence structure maps the

data to be persisted to a single table in a database (i.e., simple mapping may be an algorithmically

inferred one-to-one correspondence between fields in the business object and fields in the persistent data

store , see paragraph 0062, lines 7-11, Calusinski).

Regarding claims 10, 23 and 36 all the limitations of this claim have been noted in the

rejection of claims 9, 22 and 35 above. In addition, Calusinski discloses: wherein the one or

more rules applied by the class structure based enhancer include persisting class fields that are

not static or transient (i.e., persistent fields in persistent data store see paragraph 0028,

Calusinski).

Regarding claims 11, 24, 37, all the limitations of this claim have been noted in the rejection of

claims 1, 14 and 27 above. In addition, Calusinski discloses wherein the rules applied by the class

structure based enhancer include storing persistent fields of a given class in a table corresponding

to that class in a database (i.e., metadata describing the data structure of a persistent data stores, ..., see

paragraph 0024, Calusinski).

Regarding claims 13, 26, 39, all the limitations of this claim have been noted in the rejection of

claims 1, 14 and 27 above. In addition, Calusinski discloses, wherein the class structure based

enhancer is further configured to output the enhanced one or more classes and a database schema for

storing the data to be persisted in a persistent data store (see paragraph 0033-0034).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set

forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section
> 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the
> subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary
> skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the
> invention was made.

Claims 3, 9, 12, 16, 22, 25, 29, 35 and 38 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Calusinski (US 20050071342) in view of Chan et al. (US 6470494, hereafter Chan).

Regarding claims 3, 16, 29, all the limitations of this claim have been noted in the

rejection of claims 1, 14 and 27 above. However, Calusinski didn't disclose: wherein to

analyze the structure of the one or more classes, the class structure based enhancer is configured

to parse bytecode of the one or more classes to determine class and field attributes . On the

other hand, Chan teaches java bytecode of the class files. Thus, at the time invention was

made, it would have been obvious to a person of ordinary skill in the art to include the bytecode

in the system of Calusinski as taught by Chan. The motivation being to create class files and

stored in the file system contain the bytecodes which are instructions for a virtual computer.

Regarding claims 9, 22 and 35, all the limitations of this claim have been noted in the

rejection of claims 1, 14 and 27 above. In addition, Calusinski discloses: wherein to determine

a persistence structure for the data of the one or more classes the class structure based

enhancer is configured to apply one or more rules to the results of Java reflection calls of the

one or more input class (i.e., mapping rules see paragraph 0063, Calusinski). Chan teaches java

bytecode of the class files. Thus, at the time invention was made, it would have been obvious

to a person of ordinary skill in the art to include the bytecode in the system of Calusinski as

taught by Chan. The motivation being to create class files and stored in the file system contain

the bytecodes which are instructions for a virtual computer.

Regarding claims 12, 25 and 38, all the limitations of this claim have been noted in the rejection

of claims 1, 14 and 27 above. However, Calusinski didn't disclose: wherein the one or more classes

are comprised in a Java Archive (JAR) file. On the other hand, Chan discloses: wherein the one or

more classes are comprised in a Java Archive (JAR) file (col. 5, lines 23-24, Chan).   Thus, at the

time invention was made, it would have been obvious to a person of ordinary skill in the art to include

wherein the one or more classes are comprised in a Java Archive (JAR) file in the system of

Calusinski as taught by Chan. The motivation being to creating jar files, flexibility in use and design of

such programs would be enhanced if the entry name of a class file and other file to be placed in jar

archive could be assigned a name that is independent of wherein the file is physically located on a file

system.

Contact information

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Cindy Nguyen whose telephone number is 571-272-4025. The

examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Apu A. Mofiz can be reached on 571-272-4080. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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